From: Kemper, Tim [tim.kemper@aptim.com]
Sent: Thursday, April 4, 2019 7:22 AM
To: Stoick, Paul T CIV USN (USA) [paul.stoick@navy.mil]
Subject: [Non-DoD Source] Parcel E Phase 1 RTCs
Attachments: RTC - D RAWP_PEP1_r1.docx

Paul – if helpful for today's call with the BCT, attached please find the working *draft* Phase 1 RTCs.

V/r,

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Response to Comments on the *Draft Remedial Action Work Plan, Parcel E Remedial Action – Phase 3, Hunters Point Naval Shipyard, San Francisco, California*, December 2018, DCN: APTM-0006-4671-0008	
Comments by: Nina Bacey, Project Manager, DTSC, comments dated March 4, 2019	
General Comments	**Response**
1. Due to the proximity of workers in building 606, we request the use of PM10 dust action levels based on a commercial exposure scenario. The Dust and Air Monitoring Plans included in the Environmental Protection Plan (Appendix C) must include dust action levels. The DTSC Human and Ecological Risk Office (HERO) has prepared dust action levels for Parcel E based on the maximum concentration of the most common COCs identified at the Parcel (enclosed). The action levels developed are a not-to-exceed chronic 8-hr limits, except for copper which is an acute 4-hour limit. Real-time monitoring as indicated in Section 7.1.3.5 shall be conducted adjacent to building 606 or the perimeter fenceline adjacent to building 606. Data should be compared to the DTSC HERO dust action levels frequently (e.g., every two hours) during the work day to ensure that the dust action levels are not exceeded and/or dust suppression methods are used if the dust action levels are exceeded.	Navy: Paul – let's discuss this comment and draft response below: • DTSC is requesting a real-time dust monitoring station be established adjacent to Building 606, it be monitored frequently (every 2 hours) and results compared to the HERO generated action level concentration of 32 µg/m³ for Tier 1 locations • This added effort will require more specialized real-time dust monitoring equipment (at least 2 stations) and an additional person to set-up, calibrate, review data, evaluate frequently, subtract upwind measurements, take actions, and record/report all data • DTSC's expectations are significantly greater than what is called for in the current EPP plan/basewide dust control plan (in particular with the real-time monitoring). Calculated HERO dust levels are based on maximum tier COC concentrations; this is a conservative approach for setting parcel-wide action levels • Does the Navy want to perform the additional air monitoring requested by DTSC? • Could argue that we will measure dust near Building 606 per existing Basewide DCP, so no need to complete additional monitoring at Building 606? Draft response: As shown on Figure 1 - Construction Site Layout and BMP Location Map in the Environmental Protection Plan (RAWP Appendix C), a downwind air monitoring station will be located just east of Building 606. Air samples will be collected at this monitoring station, analyzed for the airborne contaminants of concern, including TSP, arsenic, lead, and manganese, PM10, and asbestos, and compared to the Air Monitoring Threshold Criteria (Table 6) in accordance with the EPP and approved *Final Basewide Dust Control Plan, Hunters Point Shipyard, San Francisco, California* (TetraTech EC, Inc., 2010). In addition, the air monitoring station data will be supplemented with real time air (dust) monitoring data collected at specific excavations with higher COC concentrations for APTIM worker protection in accordance with the project Site Safety and Health Plan. APTIM's certified industrial

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	hygienist (CIH) has calculated project-specific dust action levels for worker protection and the contractor will perform dust monitoring immediately adjacent to the work areas and compare results to the calculated project-specific dust action levels. Since the real-time dust monitoring will be performed immediately adjacent to the actual work areas during construction for worker protection, there is no need to perform additional monitoring adjacent to Building 606 which is located further away from the actual work areas.
Specific Comments	**Response**
1. Section 2.7 Nature and Extent of Contamination - The first sentence indicates that contaminants are found in the bullets that follow; however, the last two bullets are not media. Recommend revising the sentence.	The sentence has been revised to read: "….the following media of concern or areas at Parcel E…"
2. Section 3.2 Remedial Action Objectives - The SGALS as referenced in this Section and Table 2-3 require updating. See comments regarding SGALS in the attached HERO memorandums dated December 12, 2018 and February 28, 2019 (enclosed).	The Navy's remedial design contractor (CES) reviewed the SGALs used in the RD pursuant to the HERO memorandums and determined that the SGALs do not need revision. Therefore, the SGALs in Table 2-3 have not been changed.
3. Section 8.4 Waste Segregation and Stockpile Management, 2nd paragraph - Please delete bullet #2; it is not necessary. PCBs fall under California hazardous waste. TSCA is a US EPA regulation.	Section 8.4 has been revised as requested.
4. Section 8.4 Waste Segregation and Stockpile Management - The text states that saturated soil waste will be placed on a drying pad to allow for some moisture evaporation; however, it does not address how accumulate waste water from these pads will be disposed of. Please revise the text to state how waste water will be managed and disposed.	The following sentence has been added to this section: "If more than six inches of rainwater accumulates within a bermed stockpile area, it will be pumped into drums or a temporary tank, sampled, and characterized for proper disposal."
5. Section 8.11 Decontamination and Release of Equipment and Tools, par. 2 - The reference to AEC Reg Guide 1.86 should be revised. It was superseded by NRC Reg Guide 8.23.	The reference has been revised to NRC Reg Guide 8.23 as requested.
6. Figure 6-1 - The Parcel E Phase 3 Figure 6-1 differs from that of the Phase 1 Figure 6-1. New radiological screening pads to be constructed is not included in the Phase 3 figure. Will they be removed and not used during Phase 3? Please clarify and/or revise figure as necessary.	Figure 6-1 in the Phase 3 RAWP is accurate as submitted. As described in the RAWP, the plan is to use a specialized radiological soil screening conveyor system on Parcel E in lieu of scanning soil on radiological screening yard (RSY) pads. As shown on Figure 6-1, three existing RSY pads (C1-C3) will be used during Phase 3 for QA/QC purposes. Other RSY pads will be removed by the Navy in the future.
7. Table 9-1 Key Project Personnel - Please correct Nina Bacey's phone number as follows: (510) 540-2480.	Nina Bacey's phone number has been corrected as requested.

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8. Appendix A Sampling and Analysis Plan (SAP) Worksheet #14 a. If excavations are going to be left open while the sidewall and excavation bottom samples are analyzed, please indicate how site workers and the excavations will be protected until backfilled. b. In Section 14.2.5 it states: Radiological scanning of decontaminated equipment is discussed in the Phase 3 RAWP. Please correct and/or revise as necessary. c. In Section 14.2.4, it is recommended that a note be added that sampling on Fridays should be limited due to the short hold time for Encore samplers are used. Additionally, please add that if soil samples for VOCs and TPH-g are collected on a Friday, additional coordination with the laboratory is required. d. Section 14.2.5 discusses equipment decontamination activities to be included with the excavations, but limits decontamination to sampling equipment. Please revise to require that the drilling and excavation equipment will be decontaminated between excavation locations.	a. The following information has been added to RAWP Section 8.1.2 - Remedial Excavations (and is not repeated on SAP WS #14): "Excavations will be contained within a fenced work zone to prevent visitors and drivers from entering an open excavation area. A minimum 3 foot clear area will be maintained around an open excavation to provide safe access to those working near the excavation. Excavation sloping, shoring, and/or benching will be conducted to maintain stable excavations and monitored by a competent person consistent with Occupational Safety and Health Administration requirements." b. SAP Section 14.2 has been revised as follows: "Radiological scanning of decontaminated equipment is discussed <u>in RAWP Section 8.11 (Decontamination and Release of Equipment and Tools).</u>" c. The following note has been added to SAP Section 14.2.4, step 7 as requested: "Note: VOC sampling on Fridays should be limited due to the short hold time for Encore samplers. If soil samples for VOCs and/or TPH-g are collected on a Friday, additional coordination with the laboratory is required." d. The following sentence has been added to RAWP Section 8.1.2 - Remedial Excavations (and is not repeated in SAP Section 14.2.5): "Drilling and excavation equipment will be decontaminated between excavation locations as detailed in Section 8.11 (Decontamination and Release of Equipment and Tools)."
9. Appendix A Sampling and Analysis Plan (SAP) Worksheet #17 – Indicates excavation area EX02G105 will be excavated to a depth of 300 ft bgs. Please correct.	Worksheet #17 has been corrected to indicate that excavation area EX02G105 will be excavated to a depth of 3 ft bgs.
10. Appendix C - Environmental Protection Plan, Section 7 - DTSC requests that monthly and weekly dust and air monitoring field reports be submitted to DTSC periodically upon request.	Navy
11. Appendix C - Environmental Protection Plan, Section 7.3.1.1 - DTSC requests a supplemental real-time dust monitoring station adjacent to building 606, and that this station be monitored frequently throughout the day and compared to the DTSC dust action levels as indicated in General Comment 1. Please revise this Section as indicated.	Navy

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12. Appendix C - Environmental Protection Plan, Section 7.3.1.5 - Dust real-time monitoring. This section includes real-time monitoring to supplement PM10 monitoring samples. It indicates real-time monitoring will be checked frequently during the work day. DTSC requires that the real-time data be compared to the dust action levels provided and dust-suppression actions and/or fieldwork modifications be made as necessary so as not to exceed the dust action levels (See General Comment #1). Please revise this Section as indicated.	Navy

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Comments by: Peter Gathungu, Senior Hazardous Substances Engineer, DTSC, comments dated February 27, 2019	
Specific Comments	**Response**
1. Section 4.4 Shoreline Protection and Armored Revetment. The second sentence in the fourth paragraph states that the slope will be compacted using an excavator-mounted compaction wheel, or an engineer-approved equivalent once excavation for a section is complete. However, a compacted layer thickness is not specified, but a note on Figure 8-8 Typical Armored Revetment Detail shows a two-foot thick compacted foundation layer. The text should be expanded to include a compacted layer thickness for clarity and to remove the discrepancy between the text and the drawing.	The following text has been added to Section 4.4 for clarification as requested: "Where fill is required to be placed beneath the shoreline revetment to meet the specified subgrade, the fill will be compacted in 12-inch lifts up to 24 inches in depth. Undisturbed native foundation material for the revetment will be compacted to provide a surface that is firm and unyielding to support the overlaying revetment materials."
2. Section 7.1 Permitting and Notifications. The second sentence in the first paragraph lists entities that will be notified by APTIM prior to field activities. However, the list does not include regulatory agencies providing regulatory oversight for the remedial action. The text should be expanded to include DTSC and other agencies providing regulatory oversight, in accordance with the FFA.	Navy
3. Section 7 .2.1 Pre-Construction and Mutual Understanding Meeting. The third sentence lists representatives that will attend the pre-construction meeting. The list should be expanded to include DTSC and other agencies providing regulatory oversight for the remedial action. In addition, regulatory agencies should be provided with notice of the pre-construction meeting in sufficient advance of the meeting date to facilitate and coordinate attendance.	Navy
4. Section 8.8 Construction Completion Inspections. The first sentence states that APTIM will meet with the Navy representatives to conduct pre-final and final construction completion inspections following backfill placement and site restoration at each remedial excavation area and completion of shoreline revetment sections. DTSC and other regulatory oversight agencies should be provided timely notice of such inspections to facilitate participation in accordance with the FFA.	Navy
5. Section 9.3 Meetings and Reports. The third sentence in the first paragraph lists attendees to weekly or bi-weekly project status/contractor QC meetings during field construction activities. The text should be expanded to state that regulatory oversight agencies, including DTSC, will be notified of such meetings to facilitate attendance, at their discretion. The text in the second paragraph should be revised to state the oversight regulatory agencies will be copied on the weekly reports.	Navy

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6. Figures. The included figures are not dated. The figures should be revised to include dates when they were prepared to correctly depict the status of work being proposed and features shown.	A preparation date will be added to each figure as requested.
7. Figure 8-8 Typical Armored Revetment Detail. The top of the one-foot thick clean fill placed offshore (bottom of slope on left side of the drawing) is shown as Elevation 0' MSL, and the bottom is shown as Elevation 1'. The note on the slope base refers to 2' compacted foundation, the second sentence in the fourth paragraph in Section 4.4 Shoreline Protection and Armored Revetment only states that the slope will be compacted without indicating depth of the compacted layer. In addition, it is not clear if the compacted foundation layer extends beyond the slope to below the sea wall, around the slurry wall and to the landward edge of the geogrid. The elevation note appears to be in error and should be revised. The compacted foundation note should be revised to show the extent of the compacted foundation layer, and the foundation layer thickness should be revised if necessary.	As requested, the elevation note for the bottom of the one-foot thick clean fill placed offshore in Parcel F will be corrected to Elevation -1'. The compacted foundation note will not be revised regarding the extent of the compacted foundation layer as this note is accurate as presented and was part of the approved Remedial Design (Figure C23; CES, 2018). As noted in response to comment #1, the extent of compaction will depend on actual field conditions encountered along the revetment. The following text was added to Section 4.4 for clarification as requested: "Where fill is required to be placed beneath the shoreline revetment to meet the specified subgrade, the fill will be compacted in 12-inch lifts up to 24 inches in depth. Undisturbed native foundation material for the revetment will be compacted to provide a surface that is firm and unyielding to support the overlaying revetment materials."
8. Figure 8-10 Shoreline Revetment Wall Detail and Notes. General Structural Notes. General. The first note states that all construction and materials shall be in accordance with the 2010 California Building Code (CBC) and American Concrete Institute Building Code Requirements for Reinforced Concrete (ACI 318-95). We note that the reference CBC and ACI 318 versions are outdated by several editions. The note should be revised to refer to the current editions (2016 CBC and ACI 318- 14) of both documents.	Navy Figure 8-10 is extracted directly from Figure S1 Shoreline Revetment Wall Detail and Notes in the approved Final Remedial Design Package (CES, 2018). Therefore, changes to the approved design, including notes, will not be made.
9. Figure 8-10 Shoreline Revetment Wall Detail and Notes. General Structural Notes. Design Loads. The wind loading shows a wind speed of 80 miles per hour (mph) and exposure "B" based on what appears to be the Uniform Building Code (UBC). The seismic loading refers to UBC - Zone 4. We note that the UBC has not been in use for nearly two decades, the stated wind speed appears to be outdated, and seismic zones are no longer in use. The design loads should be updated to reflect the current CBC and American Society of Civil Engineers (ASCE) 7 standard requirements.	Navy Please refer to response to Comment #8.
10. Appendix D Draft Contractor Quality Control Plan, Parcel E Phase 3 Remedial Action. Section 5.2 Quality Control Meeting Minutes. The second paragraph states that the project quality control manager (PQCM) will prepare minutes of weekly quality control (QC) meetings and provide a	Navy

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copy to the Contracting Officer Representative (COR) within two working days after the meeting. Copies of the minutes should also be provided to the regulatory agencies, including DTSC, that provide regulatory oversight for the remedial action. The text should be revised accordingly.	
11. Appendix D Draft Contractor Quality Control Plan, Parcel E Phase 3 Remedial Action. Section 8.0 Completion Inspections. The second sentence lists required participants for completion inspection of definable features of work (DFOW) prior to subcontractor demobilization. The list should be expanded to include DTSC and other regulatory agencies with regulatory oversight over the work.	Navy
12. Appendix D Draft Contractor Quality Control Plan, Parcel E Phase 3 Remedial Action. Section 8.2 Pre-Final Inspection. The first sentence states that the Navy's CQA Manager and the Resident Officer In Charge of Construction (ROICC) will perform a preliminary pre-final inspection to verify that DFOW contract requirements are met for completed fieldwork. DTSC and other regulatory agencies should be given timely notice to participate in the pre-final inspection to facilitate their regulatory oversight role, in accordance with the FFA. The text should be revised to state that DTSC and other regulatory agencies will be provided sufficient notice in advance (preferably one to two weeks), to enable participation in the pre-final inspection in fulfillment of their regulatory oversight role. DTSC and other regulatory agencies also should be present during the final inspection and the text in the second sentence in Section 8.3 Final Acceptance Inspection should be revised accordingly.	Navy
13. Appendix D Draft Contractor Quality Control Plan, Parcel E Phase 3 Remedial Action. Attachment 7 Testing Plan and Log. Several of the test procedures presented in the table are no longer in use or have been replaced. For example, we note that ASTM D422 and D2434 were withdrawn in 2015 and 2016, respectively; and ASTM A185 was withdrawn in 2013 and replaced with ASTM A1064. The table should be comprehensively reviewed to ensure that all included test procedures are current.	Navy The test procedures presented in Attachment 7 Testing Plan and Log are extracted directly from the approved Final Remedial Design Package (CES, 2018). Therefore, changes to the approved design, including test procedures, will not be made.

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Comments by: Charlie Huang, Staff Toxicologist, Dept. of Fish and Wildlife, comments dated February 4, 2019	
General Comments	**Response**
1. CDFW-OSPR appreciates the opportunity to provide guidance on the planned cleanup at HPNS. This memorandum will serve to inform the Navy of our continuing interest in coordinating any natural resource issues, as one of the designated State natural resource Trustees.	Navy
2. The Navy should provide the name and qualifications (resume, curriculum vitae or past experience) of the biologist(s) that will conduct the preconstruction biological survey and remedial action monitoring to CDFW-OSPR and the U.S. Fish and Wildlife Service (USFWS) for review and approval. A qualified biologist is an individual who has academic training and professional experience in biological sciences and related resource management activities as it pertains to the project. The individual shall have field experience with construction-level biological monitoring, be able to identify special status species in California that may be present within or adjacent to the project area and be familiar with the habits and behavior of those species In order to recognize when project activities may be affecting such species or causing "take". Additionally, the qualified biologist shall have experience conducting appropriate protocol-level surveys for special status species potentially present and have working knowledge of all pertinent environmental laws and regulations.[1] Confirming that biologists are qualified helps ensure that State natural resources and special status species are adequately protected. See also Specific Comment 5.	Navy The Navy will provide a separate letter to CDFW-OSPR and USFWS providing the name and qualifications of the biologist(s) that will conduct pre-construction biological surveys and remedial action monitoring.
Specific Comments	**Response**
1. Page 2-1, Section 2.0 Site Description and Background; and Appendix A Sampling and Analysis Plan (SAP), Worksheet #10. The document includes sections for Geology and Hydrology. Please include a section for Biological Resources and discuss the habitat and special status species that are present or potentially present at and adjacent to the site.	Navy The Navy will prepare a separate report addressing Biological Resources and discussing the habitat and special status species that are present or potentially present at and adjacent to the site.
2. Page 3-4, Section 3.2 Remedial Action Objectives. The text states, "In accordance with the ROD (Navy, 2013), actions involving containment, monitoring, and implementation of ICs [Institutional Controls) will prevent exposure to the remaining contamination with chemical concentrations exceeding the RGs [Remediation Goals)". The ICs will not prevent exposure of ecological receptors such as burrowing animals and deep-rooted plants under various pathways (i.e., inhalation, ingestion, dermal, root uptake) to	Navy – Paul: should we revise the Section 3.2 text (taken straight from the ROD) and replace the word "prevent" with "reduce" or "minimize"?

contaminants remaining under the soil cover. ICs also will not prevent burrowing animals from bringing buried contaminants to the surface where they may be exposed to ecological and human receptors, completing an exposure pathway. Exposed contaminants may also be transported by wind and storm water runoff off-site into surrounding areas, where exposure to both human and ecological receptors may occur. The Navy is responsible for preventing off-site migration of any remaining contaminants and the subsequent exposure of these contaminants to human or ecological receptors. Therefore, implementation of maintenance and monitoring activities, such as erosion control, burrowing animal control, repair of damage to the soil cover, and soil and storm water sampling, in coordination with the regulatory agencies, is necessary to ensure the remedy remains protective of both human and ecological receptors. Please revise the text and replace the word "prevent" with "reduce" or "minimize".	
3. **Page 4-1, Section 4.1 Sequence of Remedial Activities.** Please include preconstruction biological surveys and monitoring by a qualified biologist as the first major task in the list of activities to be completed for the Phase 3 remedial activities at Parcel E.	Navy Page 4-1, Section 4.1 has been revised as requested to include pre-construction biological surveys and monitoring by a qualified biologist as the first major task in the list of activities to be completed.
4. **Page 4-2, Section 4.3 Nearshore Slurry Wall Construction; and page 8-5, Section 8.2.2 Temporary Shoring Installation.** The text indicates a 1,070-foot long sheet pile wall will be installed to stabilize the shoreline area and prevent sediment migration into the Bay. The sheet pile wall will include a 20-foot overlap with the existing Parcel E-2 nearshore slurry wall. CDFWOSPR has previously provided comments on sheet pile walls and methods of installation in comments on the Parcel E-2 nearshore slurry wall (Huang and Nakahara, 2015b). If sheet pile wall (slurry wall) installation includes pile driving, the high noise levels generated by such actions can create underwater pressure waves that have the potential to disturb, injure., or kill migrating or nearby special status fish species. In addition, fish can be trapped or stranded inside sheet pile walls and injured during dewatering or rescue operations. The Navy must prevent impacts to State and Federally protected aquatic species and their habitats during remedial activities. Special status aquatic species that have the potential to be affected during work in the tidally influenced zone include the State threatened longfin smelt, Federally threatened green sturgeon, and Federally threatened steelhead - Central California Coast Distinct Population Segment. The Navy	Navy The following sentence has been added to Page 8-6, Section 8.2.2 Temporary Shoring Installation for clarification: "The sheet piles will be installed using vibratory methods or other non-impact driving methods when feasible."

does not have authorization for any take of these species, including incidental take. Work in the tidally influenced zone may also affect designated critical habitat for the green sturgeon and steelhead, as well as spawning areas for Pacific herring. As a result, appropriate avoidance, minimization, and mitigation measures will need to be implemented such as: • installing sheet piles using vibratory methods or other non-impact driving methods when feasible • monitoring underwater sound levels to determine compliance with established underwater noise thresholds • restricting sheet pile installation to species specific work windows • using an air curtain to disrupt sound wave propagation • installing sheet piles during low tides • having a qualified biologist present during work activities. Measures to protect special status aquatic species have not been included in the Draft Parcel E Phase 3 Remedial Action Work Plan. Please provide a list of avoidance, minimization, and mitigation measures that will be implemented for special status aquatic species during remedial activities in the Draft Final Work Plan for review and approval.	
5. Page 5-2, Section 5.8 Biological Surveying and Monitoring Plan; page 7-2, Section 7.3 Biological Surveying and Monitoring; and Appendix E Biological Surveying and Monitoring Plan, page 2, Section 2.0 Pre-Construction Focused Biological Surveys. CDFW-OSPR requests the Navy provide the name and qualifications of the biologist(s) that will conduct pre-construction biological surveys and remedial action monitoring, to CDFW-OSPR and the USFWS for review and approval prior to the start of field activities. See also General Comment 2.	Navy The Navy will provide a separate letter to CDFW-OSPR and USFWS providing the name and qualifications of the biologist(s) that will conduct pre-construction biological surveys and remedial action monitoring.
6. Page 7-2, Section 7.3 Biological Surveying and Monitoring. The text states, "Biological monitoring and reporting will be performed by a qualified biologist during mobilization, demobilization, excavation, and grading	Navy Page 7-2, Section 7.3 has been revised as requested to state: "Biological monitoring and reporting will be performed by a qualified biologist during

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activities in accordance with BSMP [Biological Surveying and Monitoring Plan] (Navy, 2018) (Appendix E)". Biological monitoring and reporting should be performed by a qualified biologist for all remedial activities that have the potential to adversely impact special status species, not just during mobilization, demobilization, excavation, and grading. Other remedial activities that have the potential to affect special status species include site preparation, installation of the sheet pile wall, and construction of the nearshore slurry wall, shoreline protection features, and concrete seawall. Please revise the text to state, "Biological monitoring and reporting will be performed by a qualified biologist during all remedial activities with the potential to adversely impact special status species in accordance with BSMP (Navy, 2018) (Appendix E)".	all remedial activities with the potential to adversely impact special status species in accordance with BSMP (Navy, 2018) (Appendix E)".
7. Page 7-2, Section 7.4 Mobilization. The text states, "Site-specific training will include radiological safety awareness and MPPEH [Material Potentially Presenting an Explosive Hazard] safety awareness, as necessary". Please revise the text to also include Biological Resource Education Program training.	Navy Page 7-2, Section 7.4 has been revised as requested to state: "Site-specific training will include radiological safety awareness, Biological Resource Education Program training, and MPPEH safety awareness, as necessary."
8. Page 7-4, Section 7.6.2 Erosion and Sediment Control Measures; and Appendix E Biological Surveying and Monitoring Plan, page 5, Section 3.3 Procedures to Protect Biological Resources. The text indicates that construction Best Management Practices may include the use of fiber rolls. CDFW-OSPR requests the Navy use erosion control devices made of biodegradable materials such as coconut coir instead of monofilament nylon, to minimize the risk of wildlife entanglement that may result in injury or death. If fiber rolls are used, they should be monitored on a daily basis to ensure wildlife do not become entangled, and to ensure erosion control measures remain effective.	Navy Page 7-4, Section 7.6.2 has been revised as requested to state: "If fiber rolls are used, they will be monitored on a daily basis to ensure wildlife do not become entangled, and to ensure erosion control measures remain effective."
9. Page 10-1, Section 10.2 Remedial Action Completion Report [RACR]. Please include the Pre-construction Biological Surveys and Daily Biological Monitoring Reports in the list of items to be included in the RACR.	Navy As requested, the following item has been added to Page 10-1, Section 10.2 list of items to be included in the RACR: "Pre-construction biological surveys and daily biological monitoring reports".
10. Appendix A, Page 15, SAP Worksheet #6. Communication Pathways. a. CDFW-OSPR requests the Navy add the approved biological monitor or biologist to this worksheet under the "Stop work issues" communication driver in the event that special status species are	Navy – Karen please provide your phone number for WS #6 a. As requested, Appendix A, Page 15, SAP Worksheet #6. Communication Pathways has been updated to include Navy biologist Karen Mabb under the "Stop work issues" in the event that special

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observed and/or detected and to ensure the organizational structure is in place so that State natural resources are adequately protected. **b.** The Quality Assurance (QA) Officer should also be responsible for verifying that all documents are signed and available for review, in addition to the procedures listed. Please update the QA Officer responsibilities to include, verifying that all documents are appropriately signed and available for review, in the worksheet. Should the Navy deem such responsibilities belong to another individual, we request the Navy identify the individual or position responsible and include such requirements for the position.	status species are observed and/or detected and to ensure the organizational structure is in place so that State natural resources are adequately protected. b. Navy – Paul – please see re specifying QAO responsibilities?
11. Appendix A, Page 20, SAP Worksheet #7-Personnel Responsibilities and Qualifications Table. The table does not include the qualifications of any of the individuals listed. Please provide the qualifications to complete the table. Additionally, CDFW-OSPR requests the Navy add both the Navy and APTIM Federal Services, LLC biologists to this table and include their relevant qualifications. See also General Comment 2 and Specific Comment 5.	Navy The Navy will provide a separate letter to CDFW-OSPR and USFWS providing the name and qualifications of the biologist(s) that will conduct pre-construction biological surveys and remedial action monitoring.
12. Appendix A, Page 21, SAP Worksheet#8: Special Personnel Training Requirements Table. CDFW-OSPR requests the Navy add biological resource training to the special training requirements. The qualified biologist shall conduct a Biological Resource Education Program briefing to all contractor and subcontractor personnel prior to any site entry. The qualified biologist shall train all personnel on the location of sensitive habitat, identification of all special status species, instructions of procedure when encountering one, and general environmental laws. New employees will attend a briefing given by the qualified biologist prior to participating in work activities. This training should be documented with project personnel signing a sheet to confirm that the training was taken and understood. See also General Comment 2.	Navy
13. Appendix C Environmental Protection Plan, page 5--16, Section 5.3.8 Post-Construction Stormwater-Management Measures. The text states, "In areas requiring revegetation (if any), a native seed mix similar to that described in the Final Design Basis Report, Parcel E, Hunters Point Naval Shipyard, San Francisco, California (Construction Engineering Services, LLC, 2018) will be used". Please provide the list of species in the native	Navy

seed mix to CDFWOSPR and USFWS for review and approval prior to its use in any revegetation efforts.	
14. Appendix E Biological Surveying and Monitoring Plan, page 3, Section 2.0 Pre-Construction Focused Biological Surveys. a. The text states, "If signs of nesting birds are documented within the study area, additional survey requirements and/or measures to minimize adverse effects may be recommended'. Please revise this measure to state, " ... additional survey requirements and/or measures to minimize adverse effects will be recommended and any recommendations will be made in coordination with CDFW-OSPR and USFWS". b. The text states, "If any special status nesting birds are found during a focused survey, U.S. Fish and Wildlife Service (USFWS) will be notified in writing, with a report ... ' Please revise the text to state, "If any special status nesting birds are found during a focused survey, U.S. Fish and Wildlife Service (USFWS) and CDFW-OSPR will be notified in writing, with a report .. ." CDFW-OSPR is the State's Trustee for fish and wildlife resources and is also a designated Trustee for natural resources pursuant to CERCLA. **c.** The text states, "To avoid impacts to nesting birds, a qualified biologist will, in consultation with the Navy, establish an appropriate buffer zone ... or until the Navy authorizes work to proceed (i.e., USFWS concur with the Navy's recommendation from the qualified biologist that project activities are unlikely to adversely affect the nest)'. Please revise the text to state, " ... or until the Navy authorizes work to proceed (i.e., USFWS and CDFW-OSPR concur with the Navy's recommendation from the qualified biologist that project activities are unlikely to adversely affect the nest)'.	Navy
15. Appendix E Biological Surveying and Monitoring Plan, page 4, Section 3. 1 Clearance Surveys. In regards to State or Federally-listed species which may be identified within the work area, the text states, "If avoidance is not possible, the qualified biological monitor shall contact the Navy with a proposed course of action to minimize impacts to the species. The Navy will	Navy

notify the resource agency of the course of action." Please revise the text to state, " ... The Navy will notify the resource agencies of the course of action · and obtain approval from CDFW-OSPR for State-listed species, the USFWS for Federally-listed species, and both agencies for dual-listed species prior to implementation."	
16. Appendix E Biological Surveying and Monitoring Plan, page 4, Section 3.2 General Monitoring. a. The third bullet identifies bird nesting/breeding season as February 15- September 15. Please revise the dates to February 1-September 15 to account for Burrowing Owl breeding season which begins on February 1 (DFG, 2012). **b.** Please add the following measures to this bullet: If nesting birds behave normally, the qualified biologist shall monitor them twice per week to ensure the status has not changed. If nesting birds change their behavior as a result of work activities, the qualified biologist shall continue to monitor the birds as work is modified (e.g., the no work butter zone is increased) until the birds act normally .. The qualified biologist shall then monitor the birds twice per week to ensure the status has not changed. Vegetation containing nests that must be removed as a result of project implementation shall be removed during the non-nesting season (September 16-January 31).	Navy
17. Appendix E Biological Surveying and Monitoring Plan, pages 5-6, Section 3.3 Procedures to Protect Biological Resources. a. Measure 1 states, "A qualified biologist will conduct environmental awareness training for contractor and subcontractor personnel prior to entry to the study area", Please also include the following measures: The qualified biologist shall train all personnel on the location of sensitive habitat, identification of all special status species potentially present, instructions on procedures when encountering one, and general environmental laws. New employees will attend a briefing by the qualified biologist prior to participating in work activities.	Navy

Comments by: Charlie Huang, Staff Toxicologist, Dept. of Fish and Wildlife, comments dated February 4, 2019

b. Measure 6 states, "The biological monitor will remain on site during all shoreline revetment construction activities". Biological monitoring should be performed by a qualified biologist during all remedial activities that have the potential to adversely impact special status species, not just during shoreline revetment construction activities. Please see Specific Comment 6. Please revise the text to state, "The biological monitor will remain on site during all activities that have the potential to adversely impact special status species".	
c. Measure 7 states, "Prior to the initiation of work within potential habitat for special status species, the biological monitor would thoroughly inspect the work area and adjacent habitat areas to determine if protected species are present". Please revise the measure to state, "Prior to the initiation of work each day within potential habitat for special status species ..."	
d. Please add the following measure to Measure 8: If the special status species does not leave the work area, work shall not be reinitiated until CDFW-OSPR and the USFWS are contacted and have made a decision on if or how work activities should proceed.	
e. Measure 9 states, "Project equipment and access/egress would be confined to the access routes, designated staging areas, and designated work areas. Please revise the measure to state, "Project personnel, equipment and access/egress would be confined to the designated access routes, designated staging areas, and designated work areas", to ensure only designated access routes and areas will be used, especially through areas where special status species and sensitive habitats are present.	
f. Measure 11 states, "Upland routes containing non-native vegetation would be targeted for used as access routes ... " Please revise the word "used' to "use".	

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18. Appendix E Biological Surveying and Monitoring Plan, page 6, Section 4.0 Qualifications of Biological Monitors. The text states, "Prior to the onset of Project related physical disturbances within the study area, the Navy shall submit the name(s) and credentials of biologists being proposed to assist with compliance activities to the USFWS". Please revise the text to state, "... the Navy shall submit the name(s) and credentials of biologists being proposed to assist with compliance activities to the USFWS and CDFW-OSPR at least 30 days prior to any surveying or monitoring work that occurs".	Navy
19. Appendix E Biological Surveying and Monitoring Plan, pages 6-7, Section 6.0 Reporting. a. Biological Pre-Construction Survey Report,. The text indicates a preconstruction biological survey report will be submitted to the Navy for review prior to remedial action activities. Please also submit the· report to CDFW-OS PR and USFWS for review prior to remedial action activities. b. Biological Pre-Construction Survey Report. This section includes a list of items that will be included in the Biological Pre-Construction Survey Report. Please include the name(s) of the biologist(s) that conduct the survey, in this list. c. Daily Construction Report. The text states, "The daily biological monitoring report shall be submitted to the Navy within 48 hours of the monitoring event". Please email copies of the Daily Biological Monitoring Reports to CDFW-OSPR and USFWS on a weekly basis during remedial activities to keep the agencies apprised of the current status of monitoring activities and to provide Natural Resource Trustee agencies the opportunity to address issues and concerns as they arise. d. Post-Project Compliance Report. In addition to the Post-Project Compliance Report that will be submitted as an Appendix to the Remedial Action Completion Report (RACR), please include the	Navy

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Biological Pre-Construction Survey Report and Daily Biological Monitoring Reports as appendices to the RACR. e. Post-Project Compliance Report. The text states, "The Navy will notify the USFWS within 24 hours of finding the injured or dead special status species, or any unanticipated damage to their habitat. Please revise the text to state, "The Navy will notify the USFWS and CDFW-OSPR within 24 hours ... "	

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Comments by: Amy Brownell, Environmental Engineer, Dept. of Public Health, comments dated March 4, 2019	
Specific Comments	**Response**
1. Section 3.2 Remedial Action Objectives, Page 3-4 and Table 2-3: Please review the preliminary SGALs presented in Table 2-3 in light of recent changes to USEPA (May 2018), DTSC (HERO Note 3, 2018) and RWQCB (January 2019) soil gas and indoor air screening levels.	The Navy's remedial design (RD) contractor (CES) recently reviewed the preliminary SGALs used in the Remedial Design pursuant to agency comments on the Parcel E Remedial Action Monitoring Plan. The RD contractor and Navy determined that the SGALs do not need revision; therefore, the levels in Table 2-3 have not been changed.
2. Section 8.2.3.1 Compatibility Testing, Page 8-6: Suggest removing this subsection heading as the information presented appears to be related to the slurry wall materials and no capability testing is proposed presumably based on information contained in the referenced Upland-Cement Bentonite Wall Installation – Mix Design Report. Please provide an explanation here as to why compatibility testing is not needed.	The following paragraph has been as added to Section 8.2.3.1 Compatibility Testing, Page 8-6 for clarification: "For the Parcel E IR-02 Northwest slurry wall, only limited compatibility testing will be necessary to supplement the existing testing previously performed for the Parcel E-2 project. The Parcel E slurry wall subcontractor will conduct a limited slurry mix design testing program to confirm that the specified requirements of the cement-bentonite slurry will be achieved with the specified mix. The testing will include long-term compatibility testing with site groundwater collected from an existing monitoring well in IR-02 Northwest. The long term compatibility testing will be conducted for two months or until three pore volumes of permeant have passed through the samples, whichever comes first."
3. Section 6.5.4, S3 Soil Processing, Page 6-12: First paragraph section states "Processing activities using automated soil sorting technology include gamma surveys using large volume gamma spectroscopy detectors to monitor multiple isotopes simultaneously (including 226Ra, 137Cs, 90Sr) and to provide real time NORM background subtraction…" Please revise to be consistent with Section 6.6 which states that Ra-226 and Cs-137 will be evaluated via gamma spectroscopy and "Ten percent of the soil samples will also be analyzed for 90Sr and/or total strontium by gas flow proportional counter in accordance with the SAP (Appendix A):"	The first paragraph of Section 6.5.4, S3 Soil Processing, Page 6-12, is correct as written to describe the processing activities using the automated soil sorting system (S3) detector technology. Section 6.6 describes the radiological laboratory analyses used to verify the S3 processing system. For clarification, Section 6.6 has been retitled "Radiological Laboratory Analysis".
Minor Comments	**Response**
1. Table 2-2: Is the reference to the TPH action level needed in footnote b?	Yes, footnote "b" is included in Table 2-2 to be consistent with Table 5 "Remediation Goals and Action Levels for Nonradioactive Chemicals in Shoreline Sediment" in the Final Design Basis Report (CES, 2018).

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Comments by: Judy Huang, Remedial Project Manager, US EPA, comments dated March 7, 2019	
General Comments	**Response**
1. Insufficient information is provided in Appendix B (Draft Waste Management Plan) of the Draft Remedial Action Work Plan, Parcel E Remedial Action – Phase 3, Hunters Point Naval Shipyard, California (the Draft RAWP) regarding the off-site rule. While Appendix B indicates that wastes will be disposed at a treatment/disposal facility that is approved to accept Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) wastes in accordance with the "CERCLA Off-Site Rule," it does not include sufficient provisions to ensure the receiving waste management facilities meet United States Environmental Protection Agency (USEPA) requirements prior to shipment offsite. Assuming that a treatment/disposal facility is an approved waste facility is inappropriate. Periodic verification that the receiving waste management facilities meet USEPA requirements prior to shipment offsite should be incorporated into the Draft RAWP. Please revise the Draft RAWP to include periodic verification that the receiving waste management facilities meet USEPA requirements.	As requested, the following sentence has been added to Appendix B (Waste Management Plan) Section 1.0 – Introduction, and Table 1 - Summary of Transportation and Disposal Activities and Staff Responsibilities: "The T&D coordinator will periodically verify that the receiving waste management facilities meet EPA requirements."
2. The selected remedy for soil is inconsistently described in the Draft RAWP. Sections 3.2 (Remedial Action Objectives) and 4.2 (Shoreline Soil and Sediment Excavation) indicate that the selected remedy for soil includes removal of soil exceeding the Tier 2 action levels and that contaminated shoreline soil will be removed until post-excavation confirmation samples confirm residual concentrations are below the Tier 2 action levels and the total petroleum hydrocarbon (TPH) source criterion. However, Section 8.1.2 (Remedial Excavations) states, "Excavation of contaminated shoreline material will be performed until the Tier 2 soil or sediment action levels (Tables 2-1 or 2-2, as applicable) have been achieved, the excavation reaches 10 feet in depth or bedrock/Bay Mud is encountered, whichever is shallower, or upon the Navy's determination to limit excavation." Similarly, Section 8.1.2.1 states, "Over-excavation in excess of the dimensions/volumes prescribed in Table 8-1 will be performed until the Tier 2 action levels have been achieved, the excavation reaches 10 feet in depth or bedrock/Bay Mud is encountered, whichever is shallower, or upon the Navy's determination to limit excavation." As such, it is unclear how the selected remedy for soil will be achieved if excavations are terminated at 10 feet in depth or bedrock/Bay Mud or if it is met based on a Navy determination. Please revise the Draft	Navy – Paul: let's discuss this comment and draft response. The ROD and RD are less clear that the 10 foot excavation depth limit applies in shoreline sediment to prevent exposure of benthic invertebrates, birds, and mammals at concentrations exceeding the remediation goals. RD Table 5 - Remediation Goals and Action Levels for Nonradioactive Chemicals in Shoreline Sediment (CES, 2018) has the following notes: "Notes: The listed goals apply to shoreline sediment present within the intertidal zone to a depth of 2.5 feet bgs (which corresponds to the exposure depth for aquatic wildlife, as evaluated in baseline ecological risk assessment). a = The basis (risk-based) for the remediation goals is presented in Section 3 of the Final Feasibility Study Report (ERRG, 2012). However, the RD does show the maximum depth shoreline excavation (EX02NSL02) being excavated to a 10 feet bgs. Draft response (may want to just include simplified 2nd paragraph for brevity?): Consistent with the risk assessment presented in the Revised Remedial Investigation Report for Parcel E (Barajas and Associates, Inc., 2008b), Final Feasibility Study Report (ERRG, 2012), Section 2.7 of the Remedial

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RAWP to clarify how the achievement of the selected remedy for soil will be determined.	Action Objectives in the Record of Decision (Navy, 2013), and Section 3.2.1 Soil Excavation Extents and Volumes in the Final Design Basis Report (CES, 2018), remedial soil excavation depths will be extended to a maximum depth of 10 feet below ground surface. As a practical matter, the Navy has included a reference to encountering bedrock and/or Bay Mud to limit excavation depth, consistent with the Final Parcel C RAWP (Shaw, 2013), as these strata have been demonstrated to limit further downward contaminant migration. To provide flexibility for different field conditions that may be encountered, the Navy reserves the right to limit further excavation. Therefore for consistency, RAWP Sections 3.2 (Remedial Action Objectives) and 4.2 (Shoreline Soil and Sediment Excavation) have been revised to be consistent with Sections 8.1.2 (Remedial Excavations) and 8.1.2.1 (Post-Excavation Confirmation Sampling) to state: "Excavation of contaminated shoreline material will be performed until the Tier 2 soil or sediment action levels (Tables 2-1 or 2-2, as applicable) have been achieved, the excavation reaches 10 feet in depth or bedrock/Bay Mud is encountered, whichever is shallower, or upon the Navy's determination to limit excavation."
3. Appendix A (Draft Sampling and Analysis Plan; SAP) is incomplete. For example, Appendix A does not include the sampling and analysis associated with the slurry wall (e.g., water chemical analysis, initial bentonite slurry, cement-bentonite slurry, cement-bentonite backfill) or waste management (e.g., waste profiling per off-site disposal facility requirement). Based on Table 3 (Waste Sample Types and Analysis) of Appendix B (Draft Waste Management Plan) and Attachment 7 (Testing Plan and Log) of Appendix D (Contractor Quality Control Plan), several tests and analysis are proposed be conducted by an accredited/approved lab which are not addressed in Appendix A. Please revise Appendix A to include all sampling and analysis that will be conducted as part of the selected remedy.	Sampling and analysis associated with construction features of work, such as slurry wall testing or waste disposal, are addressed in other project plans (e.g. Contractor Quality Control Plan or Waste Management Plan) and will not be duplicated in the Sampling and Analysis Plan.
4. While traffic control is discussed briefly in Section 7.7 (Traffic Control), access roads, haul roads, and other on-site vehicle transportation routes are not discussed or specified on a figure in the Draft RAWP. Please revise the Draft RAWP to discuss the access roads, haul roads, and other on-site vehicle transportation routes that will be used during the remedial activities.	Section 7.7 has been revised to include the following new paragraph: "The primary access roads and on-site vehicle transportation routes that will be used during the remedial activities are shown on Figure 7-1. These primary access routes include: 6th Avenue which leads from the main access gate off Crisp Road to IR-02 Northwest, I Street which leads from the main

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In addition, please ensure the access roads, haul roads, and other on-site vehicle transportation routes are specified on a figure in the Draft RAWP.	access gate off Crisp Road to IR-02 Central and IR-03, and J Street which transects IR-02 running from IR-02 Northwest to IR-02 Southeast (Metal Debris Reef Area).
5. The data reduction procedures discussed in Appendix A are insufficiently detailed. Appendix A indicates that data are entered into a database, but it is unclear if the database is compared to the hard copy data to ensure its' accuracy. Also, it is unclear if validation qualifiers will be entered into the database to ensure qualifications are considered when using the database (i.e., especially a concern if data are rejected during validation). Please revise Appendix A to discuss how the accuracy of the database will be ensured, and to clarify if the validation qualifiers will be entered into the database.	WS 34-36; Data Review Input for EDDs states: "EDDs will be verified internally by the subcontract laboratory for completeness and technical accuracy prior to submittal to APTIM. EDDs will be verified by APTIM and/or the validation company against the hardcopy laboratory reports." The following text has been added to SAP Worksheets #34-36 for clarification purposes: "VALIDATION OF LABORATORY DATA Data qualifiers will be added electronically to the database by the third party validation company through the APTIM database manager. The APTIM project chemist reviews and approves validation reports and qualifiers in the database."
6. The RAWP does not consistently require trip blanks. Worksheet #12 (Measurement Performance Criteria Table) of the Appendix A Draft SAP does not include measurement performance criteria (MPC) for trip blank samples, and Worksheet #20 (Field Quality Control Sample Summary Table) indicates that trip blanks are "Not Applicable." However, trip blanks should be collected for analyses of volatile organic compound (VOC) and total petroleum hydrocarbons (TPH)-gasoline range organic (GRO) samples. Please revise Appendix A to indicate that trip blanks will be collected for soil samples analyzed for VOCs and TPH-GRO and to provide MPC for the trip blank samples.	Trip blanks are not used for soil sample collection. Trip blanks are applicable to field QC for groundwater samples, however, no groundwater samples will be collected for this project.
Specific Comments	**Response**
1. Section 4.4, Shoreline Protection and Armored Revetment, Pages 4-3 to 4-4 and Figure 4-1, Parcel E Remedial Action Overview: The existing seawall at IR-02 Southeast, discussed in Section 4.4, should be shown on Figure 4-1 so that it is clear where it is located in relation to the 700 foot-long seawall that will be installed in IR-02 Southeast. Please revise Figure 4-1 to include the location of the existing seawall at IR-02 Southeast in relation to the 700 foot-long seawall that will be installed in IR-02 Southeast.	As requested, Figure 4-1 has been revised to include the location of the existing steel sheet pile seawall at IR-02 Southeast that will be addressed in RA Phase 4.
2. Section 4.4, Shoreline Protection and Armored Revetment, Page 4-4 and Figure 4-1, Parcel E Remedial Action Overview: Section 4.4 states, "APTIM will also excavate a small Parcel F sediment wedge (6 feet wide by	As requested, Section 4.4 has been revised to reference Figure 8-6 for the location of the small Parcel F sediment wedge in IR-02 Northwest.

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1 foot deep) in IR-02 Northwest (Figure 4-1) with a separate long-reach excavator segregating the material from Parcel E soil;" however, the "small Parcel F sediment wedge" referenced is depicted on Figure 8-6 (IR-02 Northwest Shoreline Protection Plan), not Figure 4-1. Please revise Section 4.4 to reference Figure 8-6 for the location of the small Parcel F sediment wedge in IR-02 Northwest.	
3. Section 7.4, Mobilization, Page 7-2: It appears that site-specific training should include protection of birds. The text states, "Site-specific training will include radiological safety awareness and MPPEH [material potentially presenting an explosive hazard] safety awareness, as necessary." However, it is unclear why site-specific training related to the identification of potential bird species protected under the Migratory Bird Treaty Act (16 United States Code Section 703) and California Fish and Game Code Section 3511, as discussed in Section 7.3 (Biological Surveying and Monitoring), is not included. Further, it is unclear why site-specific training to identify bird nests and burrowing owl habitat is not provided. Please revise Section 7.4 to include site-specific training related to the identification of potential bird species protected under the Migratory Bird Treaty Act (16 United States Code Section 703) and California Fish and Game Code Section 3511. In addition, please clarify why site-specific training to identify bird nests and burrowing owl habitat is not provided.	The following sentence has been added to Section 7.4 as requested: "The biological training will address the identification of potential bird species protected under the Migratory Bird Treaty Act (16 United States Code Section 703) and California Fish and Game Code Section 3511, including site-specific training to identify bird nests and burrowing owl habitat."
4. Section 7.6.5, Topographical Survey, Field Observations, and Photographic Documentation, Page 7-6: Section 7.6.5 does not describe all of the surveying that should be conducted. The text states, "Following completion of excavation and prior to backfilling, a topographic survey will be performed to the total volume of soil excavated. A final topographic survey will be performed after backfilling and will mark the final high points, low points, and grade breaks. The final survey will be used to create an as-built drawing for use during future Navy work at the site." However, it is unclear if components of the Phase 3 Remedial Action, constructed after the soil excavation (e.g., revetment, top of the three-foot concrete seawall) will be surveyed. Please revise Section 7.6.5 to clarify that components of the Phase 3 Remedial Action constructed after the soil excavation will be surveyed.	The following sentence has been added to Section 7.6.5 as requested: "In addition, the final locations and elevations of the Phase 3 RA components, including the slurry wall, shoreline revetments, and concrete seawalls will be surveyed to create an as built drawing for use during future Navy work at the site."
5. Section 7.6.8, Material Handling and Storage Areas, Page 7-7: The need for radiological analysis is discussed at length in Section 7.6.8, but the	Section 7.6.8 has been revised to include the following sentence: "Soil identified for off site disposal will be sampled for chemical constituents as

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chemical constituents that the excavated soil be analyzed for are not specified. Section 7.6.8 states that non-LLRW soil not meeting chemical reuse criteria will be disposed off-site, but the text does not discuss the sampling and analysis (e.g., number, depths, method of sampling) of the soil for non-radiological constituents. Please revise Section 7.6.8 to discuss the chemical constituents for which the excavated soil will be analyzed.	required by the receiving facility and according to the Waste Management Plan (Appendix B)."
6. Section 7.6.8, Material Handling and Storage Areas, Page 7-7; Appendix C, Draft Environmental Protection Plan, Section 5.2.2.3, Stockpiles, Page 5-6; Appendix C, Draft Environmental Protection Plan, Section 5.2.2.6, Maintenance of Backfill Material Stockpiles, Page 5-7; and, Appendix C, Draft Environmental Protection Plan, Section 7.0, Dust Control Plan, Page 7-1: These sections do not include sufficient dust mitigation measures. Section 7.6.8 states, "Inactive soil piles will be covered with a soil stabilizer or HDPE [high-density polyethylene] sheeting to minimize the generation of dust, runoff, or soil migration in accordance with the Dust Control Plan (Appendix C, Section 7.0);" however, it is unclear what dust mitigation measures will be implemented over weekends and holidays. Similarly, Sections 5.2.2.3 and 5.2.2.6 of Appendix C indicate stockpile soil and stockpiled backfill soil (not used for more than 14 days) may be sprayed with spray-on fixatives such as Gorilla Snot® and/or other measures to prevent erosion and generation of dust consistent with the Section 7.0 of Appendix C. Section 7.0 of Appendix C states, "Inactive surface areas and storage piles (defined as inactive for more than seven calendar days) will be stabilized with a chemical stabilizer. Active surface areas and storage piles (areas where material is being added or removed within seven calendar days) will be wetted with water and/or a chemical stabilizer as appropriate;" however, it is unclear what dust mitigation measures will be implemented over weekends, holidays or when high winds are forecast. Please revise Section 7.6.8, Sections 5.2.2.3, 5.2.2.6, and 7.0 of Appendix C to clarify what dust mitigation measures will be implemented over weekends, holidays or when high winds are forecast.	In the unlikely event that dust-generating RA activities occur over weekends or holidays, dust mitigation measures will be implemented as described in Appendix C, Environmental Protection Plan, Section 7.0, Dust Control Plan. When high winds are forecasted during dust-generating RA activities, additional dust mitigation measures will be implemented in accordance with EPP Section 7.2.8 - Wind-Speed Monitoring and Response, including work stoppage when wind speeds exceed 25 mph.
7. Section 8.1.1, Pre-Excavation Characterization Sampling, Page 8-1: Section 8.1.1 indicates that one additional sample will be collected to further delineate the shoreline excavation area EX03SH012 in Redevelopment Block EOS-3 where sample IR03SH012 exceeded the sediment action level for copper and zinc; however, Worksheet #18 (Sampling Locations and	Section 8.1.1, Pre-Excavation Characterization Sampling, Page 8-1, has been clarified as follows: "As identified in the DBR (CES, 2018a), two additional samples will be collected to further delineate the shoreline excavation area EX03SH012 in Redevelopment Block EOS-3 (Figure 8-3). Figure 8-3 shows the location of the pre-excavation characterization

Methods/Standard Operating Procedures Requirements Table) of the Appendix A Draft SAP indicates that two samples (EX03SH012-EC-1 and EX03SH012-EC-2.5) will be collected from 1 foot below ground surface (bgs) and 2.5 foot bgs. It should also be noted that, based on Figure 8-3 (Excavations at Redevelopment Block EOS-3), the additional sample location will be collected northeast and outside of the proposed excavation area EX03SH012 in Redevelopment Block EOS-3. Please revise Section 8.1.1 to clarify that two samples from an additional sample location near proposed excavation area EX03SH012 in Redevelopment Block EOS-3 will be collected during pre-excavation characterization. In addition, please clarify that the additional sample location will be collected northeast and outside of the proposed excavation area EX03SH012 in Redevelopment Block EOS-3.	samples to be collected northeast and outside of the proposed excavation area EX03SH012 from 1 foot below ground surface (bgs) and 2.5 foot bgs."</u>
8. Section 8.1.2, Remedial Excavations, Page 8-2; Section 8.1.2.1, Post-Excavation Confirmation Sampling, Page 8-4; and Section 8.1.2.2, Step-Out Excavations, Page 8-4: All criteria that will be used to limit the extent of excavation should be specified. Section 8.1.2 indicates that "Excavation of contaminated shoreline material will be performed until the Tier 2 soil or sediment action levels (Tables 2-1 or 2-2, as applicable) have been achieved, the excavation reaches 10 feet in depth or bedrock/Bay Mud is encountered, whichever is shallower, or upon the Navy's determination to limit excavation." However, the decision criteria that would be utilized by the Navy to justify their determination to limit excavation are not provided and/or referenced. Similarly, Section 8.1.2.1 indicates that "Over-excavation in excess of the dimensions/volumes prescribed in Table 8-1 will be performed until the Tier 2 action levels have been achieved, the excavation reaches 10 feet in depth or bedrock/Bay Mud is encountered, whichever is shallower, or upon the Navy's determination to limit excavation." In addition, Section 8.1.2.2 indicates that if sample results do not meet Tier 2 action levels after one step-out, the remedial project manager (RPM) will be informed in a timely manner and further direction requested; however, the decision criteria that the RPM will utilize are not provided and/or referenced. Please revise the Draft RAWP to provide and/or reference the decision criteria that would be utilized by the Navy to justify their determination to limit excavation and the decision criteria that would be utilized by the RPM.	Navy/Paul: The following sentence has been added to the third paragraph of Section 8.1.2, Remedial Excavations, Page 8-2 for clarification: "The Navy will use a weight of evidence approach to justify the determination to limit further excavation including the following decision criteria: concentration of residual COC vs. Tier 2 action level, depth and extent of contamination below 10 feet, location of the Tier 2 exceedance and future exposure potential (e.g. beneath durable cover), and practicality of removing the residual contamination."

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9. Section 8.1.2, Remedial Excavations, Page 8-3: Section 8.1.2 states, "Material excavated from non-radiologically controlled areas will be placed on plastic sheeting to avoid contamination of underlying soil;" however, Figure 4-1 (Parcel E Remedial Action Overview) indicates that areas to be addressed as part of Phase 3 of the Remedial Action are all radiologically impacted. As such, it is unclear where the non-radiologically controlled areas where excavation will occur are located. It should be noted that the off-shore areas in IR-02 Southeast, historically were considered to be radiologically impacted. Please revise Section 8.1.2 to clarify where the non-radiologically controlled areas where excavation will occur are located.	The referenced sentence in Section 8.1.2, Remedial Excavations, Page 8-3, has been revised as follows: "Material excavated from chemically impacted or radiologically controlled areas will be placed on plastic sheeting to avoid contamination of underlying soil."
10. Section 8.1.2.1, Post-Excavation Confirmation Sampling, Page 8-3 and Table 8-1, Planned Shoreline Excavation Summary – Phase 3 Remedial Action: Limiting the analyses to the contaminants of concern (COCs) specific to each excavation is insufficient for the three contiguous excavations at IR-02 Northwest (Block EOS-1 North). The sidewall samples between excavations should be analyzed for the full list of COCs for both excavations. This would also be necessary if the excavations offshore of EOS-4 South (IR-02 Southeast) are extended such that they become contiguous. Please revise Section 8.1.2.1 and Table 8-1 to ensure contiguous excavations are analyzed for the full list of COCs for both excavations.	SAP Work Sheet Section 17.1 and Work Plan Section 8.1.2.1 have been revised as requested. The following note has been added to Section 8.1.2.1- Post-Excavation Confirmation Sampling, third paragraph, as requested: "Note: if a single sidewall confirmation sample is collected between two contiguous excavations (e.g. excavations EX02NSL01 and EX02NSL02 at 2.5 feet bgs in Block EOS-1 North; Figure 8-2), then the sample will be analyzed for the excavation-specific COCs listed on Table 8-1 for both excavations."
11. Section 8.1.2.1, Post-Excavation Confirmation Sampling, Page 8-4 and Section 8.1.2.2, Step-Out Excavations, Page 8-4: Section 8.1.2.1 indicates that "If residual contamination is limited to TPH [total petroleum hydrocarbon] only, further excavation may be addressed under the TPH program;" however, Section 8.1.2.2 also states, "If residual contamination is limited to TPH only, further excavation will be addressed under the TPH program." As such, it is unclear if further excavation may or will be addressed under the TPH program. Please revise Sections 8.1.2.1 and 8.1.2.2 to address this discrepancy.	For consistency, Section 8.1.2.2, Step-Out Excavations, page 8-4, has been revised as follows: "If residual contamination is limited to TPH only, further excavation may be addressed under the TPH program."
12. Section 8.1.2.2, Step-Out Excavations, Page 8-4: Section 8.1.2.2 states, "If confirmation sample results in a post-excavation floor sample exceed Tier 2 action levels, a step-out excavation will be performed which extends the excavation depth by 1 foot within 2.5 feet on all four sides of the sample that exceeded action levels;" but the text does not propose sidewall sampling, only floor sampling. Without additional sidewall sampling, the extent of the floor contamination will not have been delineated and it is possible that the	The proposed step-down excavation confirmation sampling as described in Section 8.1.2.2 is consistent with the approved Final Remedial Design Package (CES, 2018) and step-down excavation confirmation sampling approach previously approved for use at Parcel C (Shaw, 2013). Therefore, no additional sidewall samples are required if confirmation sample results in a post-excavation floor sample exceed Tier 2 action levels and step-down excavation is performed.

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over-excavation is not large enough laterally to remove all of the contamination. Please revise Section 8.1.2.2 to include additional sidewall sampling if confirmation sample results in a post-excavation floor sample exceed Tier 2 action levels and step-down excavation is required.	
13. Section 8.1.2.3, Excavation Dewatering, Page 8-5: Dewatering procedures should be included in the RAWP. Section 8.1.2.3 indicates that "If operation of a dewatering system becomes necessary to ensure that the static groundwater level is sufficiently drawn down to allow excavation to proceed safely or to ensure the proper placement of backfill material, the RPM will be notified and a dewatering procedure will be developed and implemented." However, the text does not indicate whether this procedure will be included in an addendum to the Draft RAWP or provided for regulatory review. Please revise Section 8.1.2.3 to clarify if the dewatering procedure would be included in an addendum to the Draft RAWP or provided for regulatory review.	Section 8.1.2.3, Excavation Dewatering, has been revised as follows: "If operation of a dewatering system becomes necessary to ensure that the static groundwater level is sufficiently drawn down to allow excavation to proceed safely or to ensure the proper placement of backfill material, the RPM will be notified and a dewatering procedure will be developed and implemented <u>in accordance with a field change request</u>. <u>The Navy will advise the regulatory agencies of the field change</u>. "
14. Section 8.2.1, IR-02 Northwest Slurry Wall, Page 8-5: Section 8.2.1 states, "To construct the required working platform, pre-approved fill material will be placed atop the existing grade along the alignment of the slurry wall, with a temporary slope face along the Bay side of the slurry wall;" however, details regarding the placement and compaction of the fill material and chemical sampling of the material are not provided and/or referenced. Further, it is unclear if the pre-approved fill material meets the backfill acceptance criteria. Given that the fill material is to act as a working platform, please revise Section 8.2.1 to provide and/or reference additional details regarding the placement and compaction of the fill material and chemical sampling of the material. In addition, please revise Section 8.2.1 to clarify if the pre-approved fill material meets the backfill acceptance criteria.	As requested, the following information has been added to Section 8.2.1, IR-02 Northwest Slurry Wall, Page 8-5: "The backfill material used to construct the working platform will consist of clean fill material meeting the backfill requirements provided in the SAP (Appendix A). The backfill will be composed of radiologically cleared on-site material available for reuse, or imported fill material that has been analyzed to confirm that the material does not contain site-specific COCs, ROCs, and other contaminants based on the nature of the fill source in accordance with the Information Advisory, Clean Imported Fill Material (DTSC, 2001). Construction of the working platform will comply with DBR Appendix C, Specifications Section 31 00 00, Earthwork. The soil material will be placed in 8-inch loose lifts and will be compacted to at least 90 percent of the maximum modified Proctor dry density (ASTM D 1557) at a moisture content within 3 percentage points of optimum."
15. Section 8.2.2, Temporary Shoring Installation, Pages 8-5 to 8-6: Section 8.2.2 discusses the temporary shoring, in the form of cantilevered steel sheet piles, which will be installed along the temporary slope face along the Bay side of the slurry wall; however, details regarding the removal of the temporary shoring following the construction of the shoreline revetment are not provided and/or referenced. It should be noted that removal of the sheet pile shoring is not included as a primary construction activity in Section	As requested, the following information has been added to Section 8.2.2: "After installation of the slurry wall and concurrent with construction of the armored revetment, the temporary shoring will be removed using a long-reach excavator fitted with a vibraplate attachment, capable of grasping and removing the pile sections. The temporary sheet pile shoring will be removed in sections as the revetment is constructed to maintain a stable shoreline area and prevent sediment migration into the bay."

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5.2.2 (Construction Activities and Proposed Schedule) of Appendix C (Draft Environmental Protection Plan). Please revise the Draft RAWP to provide details regarding the removal of the temporary shoring following the shoreline revetment construction.	
16. Section 8.2.3.3, Cement-Bentonite Slurry Preparation, Page 8-8: The text indicates that the bentonite and cement-bentonite slurries will be monitored as they are mixed and stored to verify that they display target properties; however, details regarding the monitoring and how monitoring will be sufficient to ensure the target properties are met are not discussed. While Attachment 7 (Testing Plan and Log) of Appendix D (Draft Contractor Quality Control Plan) provides the testing plan for the slurries, please revise Section 8.2.3.3 to provide details regarding the monitoring and how monitoring will be sufficient to ensure the target properties are met.	For clarity, the following sentence has been added to Section 8.2.3 - Slurry Wall Materials: "Quality Control samples will be collected throughout the slurry wall installation and tested at a frequency no less than that established in Attachment 7 (Testing Plan and Log) of Appendix D (Contractor Quality Control Plan)." In addition, the final sentence of the first paragraph to Section 8.2.3.3 has been revised to read as follows: "Both the bentonite and CB slurries will be monitored as they are mixed (and stored) while on-site quality control samples, as stated in the Testing Plan and Log (Appendix D, Attachment 7), will be tested to ensure the properties observed are in accordance with the requirements of Specification 02 35 27 and the required parameters of the Final Mix Design Report."
17. Section 8.2.3.4, Slurry Wall Trench Excavation and Installation, Pages 8-9 and 8-10: Section 8.2.3.4 states, "The excavator bucket will be a heavy-duty bucket equipped with teeth and rippers, which will be used to penetrate through the existing subsurface and into the Bay Mud;" however, it is unclear what will occur if large debris is found that the excavator cannot maneuver through. Please revise Section 8.2.3.4 to clarify what will occur if large debris is found that the excavator cannot maneuver through.	As requested, the first paragraph of Section 8.2.3.4 has been clarified to read as follows: "The excavator bucket will be a heavy-duty bucket equipped with teeth and rippers, which will be used to penetrate through the existing subsurface and into the Bay Mud. If large debris is encountered above the water table, then reasonable efforts will be made to remove the obstruction with the excavator, up to and including benching down to excavate the large debris. In the event that the obstruction cannot practically be removed, an alternative alignment will be proposed for Navy approval so that the slurry wall installation will complete a continuous low-permeability barrier along the Parcel E shoreline as designed."
18. Section 8.2.3.4, Slurry Wall Trench Excavation and Installation, Pages 8-9 and 8-10: It is unclear what will occur if trash or debris is found within the trench excavation. This material should not be incorporated into the slurry wall. Significant trash and debris was found mixed with soil during the IR-02 Northwest and Central Radium Dial Disposal Area time critical removal action (TCRA) and it is likely that this material extends to the shoreline in areas that were not excavated during the TCRA. However, the RAWP does not discuss removal of trash and debris from the slurry wall	As requested, the following paragraph has been added to Section 8.2.3.4, Slurry Wall Trench Excavation and Installation, page 8-11 for clarity: "Materials removed from the excavated slurry wall trench will be mechanically screened prior to conducting radiological soil screening. The mechanical screening process will segregate and remove trash and large debris (greater than 6 inches) from the excavated slurry wall trench soil. The slurry wall will be constructed using a self-hardening CB slurry, thus excluding a soil component from the wall as permitted by the Final DBR

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trench, particularly where there may be voids or other features that could compromise slurry wall integrity. Please revise the RAWP to discuss procedures for addressing trash, debris, and void space in or adjacent to the slurry wall excavation.	(CES, 2018a). Stability of the excavated trench will be maintained at all times during excavation and placement of the CB slurry by maintaining the level of the slurry in the open trench to within at least two feet of the working surface. A rapid drop in slurry level during excavation would likely result from encountering an unknown abandoned utility pipe, or other subsurface void. If slurry loss is determined to be excessive (i.e., 2 inches or more slurry loss per hour in the trench), the open portion of the trench will be backfilled with previously excavated material and/or bentonite to plug the leak. The slurry levels will be recorded to determine if an overnight loss occurs. If significant overnight loss occurs (2 feet or more slurry loss over a 12-hour period), the leak will be plugged with additional bentonite until no significant loss occurs."
19. Section 8.8, Construction Completion Inspections, Pages 8-19 and 8-20: Section 8.8 indicates that APTIM and Navy representatives will conduct the pre-final and final construction completion inspections; however, the Regulatory Agencies should be invited to participate in these inspections. Please revise Section 8.8 to clarify that regulatory agencies should be invited to participate in the pre-final and final construction completion inspections.	Navy
20. Section 8.11, Decontamination and Release of Equipment and Tools, Page 8-20: Section 8.11 discusses the decontamination procedures for equipment and tools but does not indicate where removed dirt and debris will be disposed. It should be noted that Section 8.12 (Demobilization) only discusses disposal of decontamination water. Please revise Section 8.11 to clarify where removed dirt and debris will be disposed.	The following sentence has been added to Section 8.11, Decontamination and Release of Equipment and Tools, as requested: "Removed dirt and rinsate water collected during decontamination activities, will be properly characterized and disposed in accordance with the WMP (Appendix B)."
21. Section 10.2, Remedial Action Completion Report, Pages 10-1: Section 10.2 lists the items to be included in the Remedial Action Completion Report (RACR); however, an analysis of lessons learned is not included. While an analysis of lessons learned is not required, it may be helpful for future remedial actions (RAs). Please revise Section 10.2 to include an analysis of lessons learned as an item to be included in the RACR.	The Navy guidelines for preparing a RACR does not include an analysis of lessons learned; so this item will not be added to Section 10.2. The Navy will consider providing a separate analysis of lessons learned at the end of the project.
22. Appendix A, Draft Sampling and Analysis Plan, Worksheet #5, Project Organization Chart, Page 14: The project organization chart does not distinguish between lines of authority and lines of communication. Please revise the project organization chart to show lines of authority (e.g., solid lines) and lines of communication (e.g., dashed lines), and ensure that the	The SAP Worksheet #5, Organization Chart has been revised to distinguish between lines of authority and lines of communication.

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quality assurance (QA) function is independent of all data collection activities.	
23. Appendix A, Draft Sampling and Analysis Plan, Worksheet #6, Communication Pathways, Pages 15 to 17: The communication procedures do not always specify the form of communication or the timeframe for the notifications. Please revise this worksheet to include the form of communication for all communication drivers and all necessary contact information (e.g., phone numbers and email addresses), as well as the timeframe for all notifications.	WS#6 has been revised to include communication via email or phone call for each pathway. Phone numbers and email addresses are included in WS #3.
24. Appendix A, Draft Sampling and Analysis Plan, Worksheet #7, Personnel Responsibilities and Qualifications Table, Pages 19 to 21: This worksheet does not include qualifications for any of the individuals listed. Section 2.4.3 of the Uniform Federal Policy for Quality Assurance Project Plans Manual, dated March 2005 (UFP-QAPP Manual) indicates that qualifications need to be provided so that the lead organization can ensure that the responsible project personnel meet any specific sampling and analysis (SAP) qualifications. Please revise this worksheet to include the qualifications of the personnel listed. Alternatively, please provide the resumes for all project personnel as an attachment to Appendix A.	Per Navy UPF SAP requirements, WS#7 does not require qualifications for project personnel. This template format has been in effect since implementation of the UFP QAPP by the Navy. Resumes for project personnel will not be provided in the SAP.
25. Appendix A, Draft Sampling and Analysis Plan, Worksheet #11, Project Quality Objectives, Page 35: Step 4 (Define the Boundaries of the Study) does not include temporal boundaries. Please revise Step 4 of Worksheet #11 of Appendix A to include temporal boundaries.	WS #11, Step 4 does include temporal boundaries: "The project duration for the excavation field activities is approximately 10 months; beginning with pre-excavation sampling/surveying, excavation, post-excavation confirmation sampling, and site restoration."
26. Appendix A, Draft Sampling and Analysis Plan, Worksheet #11, Project Quality Objectives, Pages 36 and 37: Step 5 (Develop the Analytic Approach) does not include if…then statements for use of the S3 automated soil sorter system. For example, as discussed in Section 6.5.6 (Remedial Approach and Radiological Object Management), if an anomaly is confirmed to be radioactive material, then it will be removed from the S3 soil screener and the soil immediately surrounding the extracted LLRO location (within a one-foot radius) will be removed and controlled as LLRW. While if…then statements are provided for the use of the RSY pads, please revise Step 5 of Worksheet #11 of Appendix A to include if…then statements for the use of the S3 system.	The following decision statement has been added to WS#15, for the S3 automated soil sorter system: • If an anomaly from the S3 system is confirmed to be radioactive material, then it will be removed from the S3 soil screener and the soil immediately surrounding the extracted LLRO location (within a one-foot radius) will be removed and controlled as LLRW.
27. Appendix A, Draft Sampling and Analysis Plan, Worksheet #11, Project Quality Objectives, Page 37: The last two bullets of Step 5 (Develop the	The last two bullets under Step 5 of Worksheet #11 for backfill have been corrected to reference WS15.2 through 15.11.

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Analytic Approach) of Worksheet #11 of Appendix A reference Worksheets #15.3 through #15.8; however, it is unclear why Worksheets #15.1 through #15.9 are not referenced. Please revise the last two bullets under Step 5 of Worksheet #11 of Appendix A to reference Worksheets #15.1 through #15.9.	
28. Appendix A, Draft Sampling and Analysis Plan, Worksheet #12, Measurement Performance Criteria Table, Page 38: This worksheet states that field duplicate samples will not be collected for soil samples due to known heterogeneity of contaminant distribution in soil matrix. Because decisions at the site will be based on discrete samples (as indicated in Worksheet #17), it is necessary to document the observed heterogeneity, which is typically done through collection of field duplicate samples. In addition, there are no field quality control (QC) samples indicated for asbestos, gamma spectroscopy, and total strontium analyses, so it is unclear how precision will be evaluated in these samples. Please revise Appendix A to include the collection of field duplicate samples for all analytical parameters. Additionally, please indicate what measures will be taken to reduce sample heterogeneity to ensure reliable decisions can be made.	Based on previous work at HPNS, the soil matrix is known to be very heterogeneous. Collecting field duplicates to continue demonstrating heterogeneity is not useful to meeting the project goals. The established sampling frequency/grid sizes are sufficient to capture hot spots. If hot spots are identified, excavation will be performed. There is no way to reduce soil heterogeneity in the field. Mixing a soil sample in the field or laboratory or collecting a field duplicate does change the heterogeneity of the sampled matrix. Precision is evaluated using laboratory controlled duplicates (MS/MSD or sample duplicates). This serves the purpose of verifying that the results of two independent measurements fall within an acceptable range, and will be evaluated by the data validator. Field duplicate samples will not be collected for soil excavation confirmation and radiological survey samples, as they would not serve the intended purpose of providing an evaluation of the precision of sampling methods and analytical methods. The heterogeneous nature of the fill material at Hunters Point is such that duplicate samples frequently do not provide replication of material types or constituents within an acceptable range, thereby negating the intended purpose for collection of duplicate samples.
29. Appendix A, Draft Sampling and Analysis Plan, Worksheet #14, Summary of Project Tasks, Section 14.2.3, Shallow Soil Sampling, Page 42: Item 4 in Section 14.2.3 of Worksheet #14 of Appendix A states that, "For S3 system, collect samples at timed interval equipment to 1 per 14 cubic yards (approximately) as appropriate for the conveyor belts;" however, Section 6.5.3 (Screening of Excavated Soil) indicates that "Soil processed on the S3 soil screener will be sampled at a rate of one soil sample per approximately every 12 cubic yards of soil screened." Please revise the Draft RAWP to address this discrepancy.	Appendix A, Sampling and Analysis Plan, Worksheet #14, Summary of Project Tasks, Section 14.2.3, Shallow Soil Sampling, Page 42 has been revised to be consistent with RAWP Section 6.5.3 Screening of Excavated Soil: "Soil processed on the S3 soil screener will be sampled at a rate of one soil sample per approximately every 12 cubic yards of soil screened. The minimum number of samples required is 16 per survey unit (or 200 cubic yard equivalent per RAWP Section Sections 6.5.2.2 and 6.5.2.3)."

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30. Appendix A, Draft Sampling and Analysis Plan, Worksheet #15.5, Backfill Materials Reference Limits and Evaluation Table – Volatile Organic Compounds, Pages 53 to 55: This table indicates that the project quantitation limit goal for 1,2-dibromo-3-chloropropane is below the laboratory-specific limit of quantitation (LOQ) and references footnote 2, but footnote 2 is missing from in the Notes section below the table. Please revise Worksheet #15.5 of Appendix A to include footnote 2 to discuss how 1,2-dibromo-3-chloropropane results will be evaluated.	The following footnote 2 has been added to WS15.5 indicating that the project quantitation limit goal for 1,2-dibromo-3-chloropropane is below the laboratory-specific limit of quantitation (LOQ): "Comparison criteria is below the laboratory LOD/LOQ; the laboratory DL is below the comparison criteria and detected analytes will be reported down to the laboratory DL."
31. Appendix A, Draft Sampling and Analysis Plan, Worksheet #15.8, Backfill Materials Reference Limits and Evaluation Table – Semivolatile Organic Compounds, Page 59: This table indicates that the project comparison criteria for bis(2-chloroethyl) ether is below the LOQ, but there is no reference to footnote 2 to explain how results for this compound will be evaluated. Please revise Worksheet #15.8 of Appendix A to include the reference to footnote 2 for bis(2-chloroethyl) ether.	WS15.8 has been revised to reference footnote 2 for compound bis(2-chloroethyl).
32. Appendix A, Draft Sampling and Analysis Plan, Worksheet #15.1 to #15.11, Reference Limits and Evaluation Tables, Pages 48 to 63: The tables note when project screening levels are less than the LOQs, and while it is understood that this may be due to limitations in the analytical methods, Appendix A should discuss the uncertainty associated with results where the screening levels are less than the LOQs. For example, when the screening level is between the limit of detection (LOD) and LOQ, Appendix A should include a discussion of sensitivity and uncertainty. This discussion should include (i.e., where applicable) why results are sufficient to meet project data quality objectives (DQOs). Further, in cases where the screening level is less than the LOQ, but above the LOD, this discussion should also include why the level of uncertainty associated with detected results less than the LOQ (i.e., results that are not reliably quantifiable) was deemed acceptable and allowed project DQOs to be met. Please revise Appendix A to provide a more detailed discussion on uncertainty in cases where the screening level is less than the LOQ.	Sensitivity is discussed in WS 37, Section 37.2.7. Standard EPA and DoD laboratory reporting format is to report detected concentrations to the DL as estimated concentrations. This estimated data, between the DL and LOQ is usable for project decisions, if determined to meet the project DQOs and validation DQIs (See EPA Using Qualified Data to Document and Observed Release and Observed Contamination, Fact Sheet 1996). Only R-qualified data are considered unusable for project decisions. A sample with a true concentration at the DL has a 50% chance of yielding a false negative, and a sample with a true concentration at the LOD has a 1% chance of yielding a false negative. Detections between the DL and the LOQ assure the presence of the analyte, but their numeric values are estimates and are therefore indicated as such on test reports. Note that for reporting purposes, any reported result at or above the DL must also meet qualitative identification criteria required by the test method. The comparison criteria for backfill is a conservative residential risk-based screening levels applied to an industrial area. None of the compounds with

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	LOQs exceeding comparison criteria are expected to be present in the backfill material. The full dataset will be evaluated against the screening criteria to determine if backfill is suitable.
33. Appendix A, Draft Sampling and Analysis Plan, Worksheet #17, Sampling Design and Rationale, Pages 65-69: Worksheet #17 is not a discussion of the sampling design and rationale, but is instead a list of procedures and activities to be performed as part of the SAP. Worksheet #17 should provide a "detailed rationale for selection of the sampling design" per Section 3.1.1, Sampling Process Design and Rationale, Page 64 of 149, of the UFP-QAPP Manual. Please revise Worksheet #17 to provide a detailed discussion of the rationale for the selection of the sampling design and explain how the number of samples and sample design for each media being sampled is sufficient to achieve the project goals.	The introductory sentence to WS#17 (shown *below*) states that this SAP will be implementing the approved design set forth in the ROD and DBR needed to meet the project objectives. No additional design will be performed. *"The following subsections describe the sampling designed to meet the project objectives from the ROD (Navy, 2013) and DBR (CES, 2018) for excavation."*
34. Appendix A, Draft Sampling and Analysis Plan, Worksheet #18, Sampling Locations and Methods/SOP Requirements Table, Pages 70-72: The Worksheet #18 table is missing two columns specified in the UFP/QAPP Manual. Columns including Concentration Level and the Rationale for Sampling Location should be included. Please revise Worksheet #18 to include the missing columns.	Per Navy UPF SAP requirements, WS18 does not require concentration level as this column is not useful. This template format has been in effect since implementation of the UFP QAPP by the Navy. The column labeled "purpose" is the rationale/use for each sample.
35. Appendix A, Draft Sampling and Analysis Plan, Worksheet #19, Analytical Standard Operating Procedure Requirements Table, Pages 73 to 74: Additional information is needed in this worksheet. The worksheet indicates that EnCore® samplers or equivalent will be used to collect TPH-GRO samples and that EnCore® or Terra Core™ samplers will be used to collect VOC samples. However, the holding time requirements provided are only for EnCore® samplers. Please revise Worksheet #19 to clarify that EnCore® or Terra Core™ samplers will be used to collect both TPH-GRO and VOC samples. In addition, please revise Worksheet #19 to indicate that if Terra Core™ samplers are used, the samples will be immediately extruded into a suitable vial preserved with sodium bisulfate and that the holding time until analysis is 14 days. Further, please revise this worksheet to indicate that the vials will be filled without headspace to minimize the loss of VOCs and TPH-GRO. Finally, please revise Worksheet #19 to indicate that if EnCore® samplers are used, the samplers are transported to the laboratory on ice	Field preservation procedures for the TerraCore are discussed in WS14, Section 14.2.4. WS#19 has been revised to also include TerraCore field preservation.

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where they are immediately (i.e., within 48 hours of sample collection) analyzed or preserved with sodium bisulfate or methanol.	
36. Appendix A, Draft Sampling and Analysis Plan, Worksheet #21, Project Sampling Standard Operating Procedures, Page 76: The sampling standard operating procedures (SOPs) listed in this worksheet appear to be incomplete. For example, there is no SOP listed for performing radiological screening of excavated soils. Please revise Worksheet #21 of Appendix A to list all SOPs necessary for the collection of samples during this investigation, and ensure the SOPs are provided in Appendix A [e.g., in Worksheet #14 (Summary of Project Tasks) or an Appendix A attachment].	WS#21 lists the sampling procedures to be used for off-site laboratory analysis. The on-site radiological screening procedures and processes are discussed in the Work Plan Section 6 (as referenced in WS#14). Detailed operating procedures of the Soil Sorting System (S3) will be addressed in a separate basewide HPNS document and is not included in this SAP. A complete reference to this new Soil Sorter Operations Plan will be added to WP Section 6.5.4, S3 Soil Processing.
37. Appendix A, Draft Sampling and Analysis Plan, Worksheet #23, Analytical Standard Operating Procedures References Table, Pages 78 to 80: There are inconsistencies between the laboratory SOPs listed in this worksheet and those provided in Attachment 2 (Laboratory Standard Operating Procedures, Certification, and Control Limits) of Appendix A. The worksheet lists SOP ST-RC-0240; however, this SOP is not provided in Attachment 2 of Appendix A. In addition, Attachment 2 of Appendix A includes SOPs DV-OP-0016 and ST-RD-0210, but these SOPs are not listed in Worksheet #23. Further, the analytical SOP for asbestos analysis is not listed in the worksheet, nor is it provided in Attachment 2 of Appendix A. Please revise Appendix A to list all laboratory SOPs relevant to the current investigation, and ensure that all laboratory SOPs are provided in Attachment 2 of Appendix A.	A copy of ST-RC-0240 has been added to Attachment 2. WS#23 has been revised to include Alpha Spec ST-RD-0210 (Alpha Spec), DV-OP-0016 (ultrasonic extraction), and Asbestos SOP.
38. Appendix A, Draft Sampling and Analysis Plan, Worksheet #25, Analytical Instrument and Equipment Maintenance, Testing, and Inspection Table, Pages 95 and 96: This worksheet does not provide maintenance, testing, and inspection requirements for the polarized light microscope (PLM) used to analyze samples for asbestos. Please revise Worksheet #25 to provide maintenance, testing, and inspection requirements for PLM analysis.	Polarized light microscope (PLM) has been added to WS#25.
39. Appendix A, Draft Sampling and Analysis Plan, Worksheet #28.2, Laboratory Quality Control Samples Table (Inductively Coupled Plasma), Pages 104 and 105: The QC checks for metals do not include post-digested spike (PDS) samples; however, PDS checks are required when the matrix spike (MS)/matrix spike duplicate (MSD) sample fails [refer to SOP DV-MT-0021 in Attachment 2 (Laboratory Standard Operating	Per WS#28.2, Corrective Action for MS/MSD: *If the MS falls outside of DoD criteria, evaluate matrix effects, perform post-digestion spike.* Another row has been added to WS#28.2 to specifically call out the post-digested spike (PDS) samples.

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Procedures, Certification, and Control Limits) of Appendix A]. Please revise Worksheet #28.2 to include the analysis of a PDS when the MS/MSD sample fails.	
40. Appendix A, Draft Sampling and Analysis Plan, Worksheet #30, Analytical Services Table, Page 124: This worksheet indicates that Enthalpy Analytical LLC is the backup laboratory for TestAmerica-Denver; however, the laboratory project manager name and contact information has not been provided, nor have the laboratory-specific control limits, QC acceptance criteria, or analytical SOPs. In addition, the backup laboratory for TestAmerica-St. Louis is listed as "TBD" to be determined. Please revise Appendix A to include complete information for each analytical laboratory that may be involved in analyzing samples during the current investigation, and ensure that all laboratories are identified in the final document.	The backup laboratories have been removed from Work Sheet #30. There is no backup laboratory for radiochemistry analysis.
41. Appendix A, Draft Sampling and Analysis Plan, Worksheet #34-36, Data Verification and Validation (Steps I and IIa/IIb) Process Table, Pages 130 to 132: This worksheet indicates data validation will be performed using several guidance documents; however, the SAP should clearly define the specific procedures that will be used to apply qualifiers for QC exceedances (e.g., the qualifiers to be used, when results will be qualified/estimated/rejected and if individual or all samples in a batch will be qualified). These procedures can be defined in tables or validation checklists for each analytical method. Please revise the SAP to provide data validation procedures for each method.	The referenced validation guidance documents have extensive descriptions and tables detailing when qualifiers will be added, when results will be qualified/estimated/rejected and if individual or all samples in a batch will be qualified for each analytical method. Additional duplication of these tables is not needed. The guidance documents will be followed.
42. Appendix A, Draft Sampling and Analysis Plan, Worksheet #34-36, Data Verification and Validation (Steps I and IIa/IIb) Process Table, Pages 130 to 132: Appendix A does not indicate what will be included in the data verification/validation reports. Please revise Appendix A to ensure that data validation and verification reports will present a discussion of all QC parameters evaluated, the acceptance criteria used to evaluate each QC parameter, a list of all QC exceedances, as well as the extent of the exceedance, the samples associated with each exceedance, and the qualifiers applied.	As listed in WS #34 – 36, initial calibration, continuing calibration verification, serial dilutions, all QC parameters associated with the analytical batch are reviewed during validation and will be included in the validation reports (depending on level of validation). All of these laboratory QC activities and will be discussed in the DQA as individual components.
43. Appendix A, Draft Sampling and Analysis Plan, Worksheet #37, Usability Assessment, Pages 134 to 135: The evaluations of precision and accuracy indicate that only certain QC checks will be evaluated (i.e., MS/MSDs and laboratory control sample [LCS]/laboratory control sample	As listed in WS #34 – 36, initial Calibration, continuing calibration verification, serial dilutions, all QC parameters associated with the analytical batch are reviewed during validation and will be included in the validation reports (depending on level of validation). All of these

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duplicates [LCSDs] for precision, and MS/MSD, LCS, and surrogate spikes for accuracy). However, it is unclear if the precision and accuracy of the other validation parameters will be assessed (e.g., calibrations, internal standards, serial dilutions, PDSs, etc.). Please revise Worksheet #37 to indicate that the Usability Assessment will evaluate all of the applicable validated QC checks.	laboratory QC activities and will be discussed in the DQA as individual components. Per Section 37.1: DQA report will cover the following topics: "*A summary of all QC activities performed for each analytical matrix and outliers identified…*"
44. Appendix A, Draft Sampling and Analysis Plan, Worksheet #37, Usability Assessment, Page 136: The calculation of completeness indicates that the amount of valid data will be compared to the total amount of data obtained and that field completeness will not be calculated for excavation confirmation samples because the total number of samples is estimated; therefore, calculation of completeness based on the planned number of samples is unnecessary. The discussion of completeness also indicates that completeness will be calculated per analyte per method, and completeness goals are only provided for QC parameters and holding times. According to Section 2.6.2.6 of the UFP-QAPP Manual, "Separate values should be provided for the whole data set, not just for the critical data subset. Since lack of data completeness may require resampling and additional costs, the [sampling and analysis plan] should discuss how sufficient data will be guaranteed for critical sample locations." In addition, Section 5.2.3.1.6 of the UFP-QAPP Manual states, "Completeness is a measure of the amount of valid data obtained from a measurement system compared with the amount that was expected to be obtained under correct, normal circumstances. In order to meet the needs of the data users, project data must meet the measurement performance criteria for data completeness specified in the [SAP] (see Section 2.6.2.6)." Please revise Worksheet #37 to indicate that completeness will be calculated relative to the total number of results planned in order to account for results that will not able to be obtained (e.g., sample breakage, inability to collect a sample, etc.). Please also revise Worksheet #37 to provide a completeness goal for the overall data set, and to discuss how it will be guaranteed that sufficient data is collected in order to reduce any potential gaps in the data.	Completeness will be calculated on the complete data set. The completeness goal as stated in WS#37, Section 37.2.6 is 90%, with holding time completeness goal of 100%. The text has been revised to state: *Completeness will be calculated per analyte per method for the entire data set.* Field completeness, per the Completeness text, will not be calculated based on the planned number of samples. Since this number is estimated and not an absolute number. The text has been revised as follows to clarify: *The field completeness will be calculated based on the final excavation area/size/soil volume and required sampling density. The sampling density will meet the requirements stated in WS #17.*
45. Appendix A, Draft Sampling and Analysis Plan, Attachment 2, Laboratory Standard Operating Procedures: The laboratory accreditation certifications have either expired or will expire during the scheduled timeframe for field activities [refer to Worksheet #16 (Project	All laboratories proposed for this project will maintain current DoD and State of California certification. The laboratory certification letters attached were the most current available at the time of submittal. The State of California has been late in sending updated letters to laboratories. The

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Schedule/Timeline Table)]. For example, the California State Environmental Laboratory Accreditation Program (ELAP) certification for TestAmerica-St. Louis expired on June 30, 2018, and the California State ELAP certification for TestAmerica-Denver expired on January 18, 2019. Please ensure that all laboratory accreditation certifications are current and that the current certificates are included in the final document.	Final SAP will include all updated certification letters (as available) for each laboratory.
46. Appendix B, Draft Waste Management Plan, Section 3.1, Solid Waste, Page 3-2: Section 3.1 of Appendix B (Draft Waste Management Plan) indicates that, "A separate ACM [asbestos containing material] abatement plan outlining abatement and material handling controls will be developed, as required, by the subcontractor and submitted for U.S. Department of the Navy (Navy) approval;" however, it is unclear why this plan would also not be submitted to the regulatory agencies for review and approval. Please revise Section 3.1 of Appendix B to clarify why an ACM abatement plan would not be submitted for review and approval, is deemed necessary.	Navy – Paul: please provide a response below. Not sure if you want to concede to EPA's request. On Parcel C RA, we only submitted the Asbestos Abatement Plan to the Navy, and then reported ACM activities completed in the RACR. If an ACM abatement plan does become necessary, and you agree to agency review, I presume that you would just email it (vs. a more formal RAWP addendum)? FYI - if we need to do abatement, our ACM subcontractor will have to provide a Bay Area Air Quality notification 10 days in advance of doing abatement work, so there is time for Navy review. Draft Response: Waste Management Plan, Section 3.1, Solid Waste, Page 3-2 has been revised as follows: "It is not anticipated that abandoned steam lines or asbestos containing material (ACM) insulation will be encountered during this project. If ACM is encountered, this material will need to be controlled, abated, and disposed of by a California-licensed asbestos abatement subcontractor. If required, a separate ACM abatement plan outlining abatement and material handling controls will be developed by a licensed asbestos subcontractor and submitted for U.S. Department of the Navy (Navy) and regulatory agency approval."
47. Appendix C, Draft Environmental Protection Plan, Section 6.4, Water-Quality Monitoring, Page 6-2: The decision criteria that will be used to evaluate the effectiveness of in-place controls should be provided. Section 6.4 of Appendix C states, "Water-quality monitoring and sample collection will be performed 20 feet outside the turbidity curtain, adjacent to the area being excavated, backfilled, or restored results of the water monitoring and sampling will be used to evaluate the effectiveness of the in-place controls. The data will not be used to make determinations about changes to construction methods or BMPs used, but rather, to document the short-term	The following additions and revisions have been made to Appendix C, Environmental Protection Plan, Section 6.4, Water-Quality Monitoring, Page 6-2 as requested: "The effectiveness of the in-place BMPs will be evaluated by comparing the weekly water quality data to the established pre-construction background values. In the event that three consecutive sets of weekly water quality data exceed background values by more than 30 percent, an evaluation of the in-place controls will be performed and additional BMPs will be implemented, to the extent practical, to further minimize sediment mobilization. The data will not be used to make

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effects, if any, that the RA may have on the Bay water quality in the vicinity of Parcel E." However, the decision criteria that will be used to evaluate the effectiveness if the in-place controls are not provided and/or references. Further, it is unclear why changes to the construction methods or BMPs would not be revised if the data indicate the in-place controls are ineffective at minimizing sediment mobilization. Please revise Appendix C to provide the decision criteria that will be used to evaluate the effectiveness of the in-place controls and to clarify why changes to the construction methods or BMPs would not be revised if the data indicate the in-place controls are ineffective at minimizing sediment mobilization.	determinations about changes to construction methods ~~or BMPs used~~, but rather, to evaluate BMP effectiveness, make appropriate BMP improvements, and document the short term effects, if any, that the RA may have on the Bay water quality in the vicinity of Parcel E."
48. Appendix C, Draft Environmental Protection Plan, Section 7.2.5, Excavation Activities, Page 7-4: Section 7.2.5 of Appendix C indicates that active excavation areas will be wetted approximately every two hours or more frequently if needed, during periods of dry weather and/or windy condition; however, the text does not reference the wind speed measures in Section 7.2.8 (Wind-Speed Monitoring and Response) of Appendix C. Please revise Section 7.2.5 of Appendix C to reference Section 7.2.8 of Appendix C.	As requested, a reference to Environmental Protection Plan Section 7.2.8 - Wind-Speed Monitoring and Response has been added to EPP Section 7.2.5, Excavation Activities, on page 7-4.
49. Appendix C, Draft Environmental Protection Plan, Section 7.3.1.1, Monitoring Site Locations, Page 7-7: Section 7.3.1.1 of Appendix C indicates, "The locations of the air monitoring stations will be determined based on the prevailing wind direction and may be modified as needed for accessibility considerations and worker safety;" however, it is unclear who will be making the determination that the locations of the air monitoring stations need to be modified. Please revise Section 7.3.1.1 to clarify who will be making the determination that the locations of the air monitoring stations need to be modified.	The following sentence has been added to EPP Section 7.3.1.1, Monitoring Site Locations on page 7-7 as requested: "Air monitoring station location determinations and modifications will be made by the on-site health and safety officer or designee."
Minor Comments	**Response**
1. Appendix A Draft SAP lists the analytical methods for analyzing soil samples during this current investigation; however, it is recommended that Appendix A be revised to clarify that the most current versions of the analytical methods will be used to analyze samples. Please revise Appendix A to include this clarification.	Method numbers in the SAP have been revised to correspond to the laboratory's State and DoD current certified versions.

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Comments by: Tina Low, Water Resources Control Engineer, San Francisco Bay Regional Water Quality Control Board, comments dated March 7, 2019	
Specific Comments	**Response**
1. Section 8.2.3.4 Slurry Wall Trench Excavation and Installation: Please include a figure to show how the Parcel E IR-02 Northwest slurry wall will be tied in to the Parcel E-2 nearshore slurry wall. The figure should show the overlap between the slurry walls, and clarify how the slurry walls will form a continuous low-permeability barrier to the migration of contaminated groundwater to San Francisco Bay.	As requested, a new detail entitled "Slurry Wall Construction Procedure and Parcel E/E-2 Overlap" has been added to Figure 8-5, IR-02 Northwest Slurry Wall Construction Details. The new detail shows the overlap between the slurry walls, and clarifies how the slurry walls at the Parcel E/E-2 boundary will form a continuous low-permeability barrier to the migration of contaminated groundwater.
2. Sections 8.3.1 Armored Revetment and 8.3.2 Hybrid Shoreline Stabilization: The draft RAWP describes a greater length of armored revetment along the shoreline at IR-02 Southeast than is specified in both the Final Record of Decision (ROD) and the Proposed Plan for Parcel E. The draft RAWP proposes to construct 700 feet of armored revetment, which is approximately 300 feet longer than the design specified in the Proposed Plan and in the ROD. As shown in Figure 11 of the ROD, the selected remedy includes "sand with underlying rock armor" along the entire length of the shoreline between IR-03 and the southwest corner of Parcel E. During the feasibility study phase, the Water Board commented that a shoreline stabilization approach that incorporates natural shoreline materials and allowed opportunity to incorporate vegetation was preferable. Please explain why the draft RAWP deviates from the Proposed Plan and the ROD. Alternatively, please revise the draft RAWP to incorporate a hybrid shoreline stabilization approach at the IR-02 Southeast shoreline that is consistent with the ROD.	The RAWP and referenced Sections 8.3.1 - Armored Revetment and 8.3.2 - Hybrid Shoreline Stabilization include armored and hybrid revetment lengths that are consistent with the approved Final Remedial Design Package (CES, 2018). According to CES, the length of hybrid shoreline stabilization at IR-02 Southeast presented in the Final RD was modified from the ROD based on new topographic survey data that was collected along the shoreline during preparation of the RD. The shoreline area in question was the former Metal Debris Reef, which was excavated during a 2005-2007 removal action. This former area used to extend Parcel E farther into the bay, but was not backfilled to the same elevations. The new survey data collected during the RD determined that most of this area was below 0 feet MSL. Based on the new survey data, the slope and width of the shoreline area in question are too narrow and steep to construct hybrid shoreline stabilization. The surveyed shoreline characteristics (i.e., width and slope) were evaluated by CES using design criteria consistent with the FS Report and ROD to determine the appropriate shoreline protection method (hybrid or armored). Concerns regarding the proposed IR-02 Southeast shoreline protection approach were not raised during final reviews of the RD; therefore, the armored and hybrid revetment lengths presented in the RAWP will remain consistent with the Final RD.
3. Appendix C: Environmental Protection Plan Section 6.4 Water Quality Monitoring: This section states that water quality monitoring and sampling data "will not be used to make determinations about changes to construction methods or BMPs used, but rather, to document the short-term effects, if any that the RA may have on the Bay water quality in the vicinity of Parcel E." The objective of water quality monitoring and sample collection is to inform whether BMPs are effective, so that changes to BMPs or construction	The following additions and revisions have been made to Appendix C, Environmental Protection Plan, Section 6.4, Water-Quality Monitoring, Page 6-2 as requested: "The effectiveness of the in-place BMPs will be evaluated by comparing the weekly water quality data to the established pre-construction background values. In the event that three consecutive sets of weekly water quality data exceed background values by more than 30 percent, an evaluation of the in-place controls will be performed and

activities can be made to protect water quality. If water quality monitoring (visual or sample analysis) indicates BMPs are not adequately protecting water quality, then changes to the BMPs or to the site activities are necessary. Please revise the text to specify how water quality monitoring will be used to ensure that site activities do not impact water quality.	additional BMPs will be implemented, to the extent practical, to further minimize sediment mobilization. The data will not be used to make determinations about changes to construction methods ~~or BMPs used~~, but rather, to evaluate BMP effectiveness, make appropriate BMP improvements, and document the short term effects, if any, that the RA may have on the Bay water quality in the vicinity of Parcel E."